

September 18, 1995

**MEMORANDUM**

**TO:** Orville D. Green, Assistant Administrator  
Permits and Enforcement

**FROM:** Darrin Mehr, Air Quality Engineer  
Operating Permits Bureau *D. Mehr*

**THROUGH:** Sue Richards, Air Quality Permits Manager *S/R*  
Brian R. Monson, Chief  
Operating Permits Bureau

**SUBJECT:** Recommendation Memorandum for Modification of Tier II Operating Permit  
#017-00003 (Louisiana-Pacific Corporation, Sandpoint)  
Natural Gas Boilers Modification Project

**PURPOSE**

The purpose of this memorandum is to satisfy the requirements of IDAPA 16.01.01.400 and 200 of the Rules for the Control of Air Pollution in Idaho for issuing and modifying Tier II Operating Permits.

**PROJECT DESCRIPTION**

This project involves the modification of the Tier II Operating Permit issued to Louisiana-Pacific's (L-P) Sandpoint, Idaho, planer mill on July 7, 1995. The Tier II permit was issued as RACT/RACM implementation for the Sandpoint PM<sub>10</sub> Nonattainment Area's Attainment Date Extension Project. The modification consists of increasing the allowable annual operating hours and regulated air pollutant emission limits for each of the two natural gas boilers from 720 hours per year to 8760 hours per year.

**SUMMARY OF EVENTS**

On July 7, 1995, L-P's Sandpoint facility was issued a Tier II Operating Permit to implement RACT/RACM in accordance with the Sandpoint SIP control strategy. On July 14, 1995, DEQ received an application for a modification to the effective Tier II Operating Permit, requesting an increase in allowable operating hours for the two natural gas boilers. On August 10, 1995, the application to modify existing Tier II Operating Permit #017-00003 was declared complete.

**RECOMMENDATIONS**

Based on review of the SIP requirements for modifications resulting in a net PM<sub>10</sub> emissions increase within a "moderate" designated PM<sub>10</sub> nonattainment area, as well as NOx and PM<sub>10</sub> ambient impact assessment modeling, staff recommend that L-P Sandpoint's Tier II Operating Permit be modified as requested. Allowable emission limits should be increased to reflect 8,760 hours of operation, and the appropriate monitoring, recordkeeping, and reporting requirements altered accordingly. No public comment period or hearing is necessary for this minor modification. Staff also recommends that the facility be notified of the obligation to pay permit application fees for the modification to an existing Tier II Operating Permit.

ODG\SJR\IDAM:jfj...lpermit\letters\lpsand\_n.rec

cc: D. Redline, NIRO  
Source File

COF  
OP File Manual

September 18, 1995

**MEMORANDUM**

**TO:** Brian R. Monson, Chief  
Operating Permits Bureau

**FROM:** Darrin Mehr, Air Quality Engineer *D. Mehr*  
Operating Permits Bureau

**THROUGH:** Sue Richards, Air Quality Permits Manager *S/R*  
Operating Permits Bureau

**SUBJECT:** Technical Analysis for Tier II Operating Permit #017-00003  
(Louisiana-Pacific, Sandpoint) Natural Gas Boilers Modification Project

**PURPOSE**

The purpose of this memorandum is to satisfy the requirements of IDAPA 16.01.01.400 and 200 of the Rules for the Control of Air Pollution in Idaho (Rules) for the authorization of a modification to an existing Tier II Operating Permit originally issued under Section 401.03 (a) of the Rules.

**FACILITY DESCRIPTION**

This facility's operations were covered under an operating permit issued on February 27, 1989. This permit was altered by two (2) settlement agreements -- one signed in 1989, and the other in 1991. This permit was superseded by the Tier II Operating Permit that was issued to Louisiana-Pacific on July 5, 1995, for the Sandpoint PM<sub>10</sub> Nonattainment Area Attainment Date Extension Project.

Louisiana-Pacific Corporation's (L-P) Sandpoint, Idaho, facility is a planing mill that produces kiln-dried dimensional lumber and a very small amount of dimensional green lumber.

Rough-cut green lumber is delivered by haul trucks to the Sandpoint facility by off-site sources. The green lumber is unloaded and stored temporarily before being placed into drying kilns to reduce the moisture content. Dried lumber is then planed for a smooth surface finish and cut to the desired dimensions. The lumber is transported to haul trucks or rail cars for shipment off-site. Waste streams include planer shavings from the planer, and sawdust and hogged trim ends from the trim saw. These materials are of kiln-dried material and are routed through various cyclones to the truck bin, where the material is batch dropped into haul trucks for off-site transport.

Haul trucks carrying woodwaste derived from off-site sources deliver hogged fuel with approximately 50% moisture content to a dump pit. The Kipper and Sons woodwaste boiler is fired on this woodwaste.

Sources that emit particulate matter with a nominal aerodynamic diameter equal to or less than ten (10) microns (PM<sub>10</sub>) at this facility can be divided into three (3) main categories: combustion, cyclones and trash bin baghouse, and fugitive emissions.

**Combustion Sources**

Combustion sources include a Kipper and Sons woodwaste boiler and two natural gas-fired boilers. The Kipper and Sons woodwaste boiler is designed to produce 60,000 pounds of steam per hour (lb steam/hr) from combusting woodwaste with a moisture content of approximately fifty percent (50%). The boiler is permitted to produce up to 75,000 lb steam/hr and has a permitted heat input capacity of 125 million Btu/hr. An existing operating limit of 68,500 lb steam/hr currently applies to the boiler, as this is the highest capacity achieved while establishing compliance with the applicable grain loading standard and PM emission limits in the facility's operating permit.

Particulate matter (PM) and PM<sub>10</sub> emissions are controlled by a multiclone connected in series with an electrified filter bed (EFB). The multiclone removes the larger particles from the exhaust stream before the exhaust is filtered by the EFB. The EFB is fitted with a media baghouse to control particulate emissions from the cleaning of the filter media (gravel in this case) before it is recycled through the EFB. A continuous opacity monitoring system (COMS) monitors the stack opacity. NO<sub>x</sub>, VOC, CO, and SO<sub>2</sub> emissions are uncontrolled.

Two (2) Cleaver Brooks natural gas-fired boilers operate as backup boilers and operate when the woodwaste boiler is shut down for maintenance. Each boiler has a rated capacity of 14,000 lb steam/hr. Emissions from the natural gas boilers vent from individual stacks and are uncontrolled. Point source emissions from these combustion processes include criteria pollutant emissions consisting of PM, PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, CO, and VOCs.

#### Cyclones and Truck Bin Baghouse

The cyclones and related pneumatic equipment are used as a means of process control. The byproducts (woodwaste) gathered from operation of this facility are of a very low moisture content and historically has presented an economic incentive for use at other L-P facilities. This woodwaste is collected and conveyed pneumatically to the woodwaste loadout bin where it is transferred to haul trucks.

The kiln-dried lumber and a small portion of green lumber are routed to the planer where excess material is removed and the lumber is cut to length by the trim saws. Planer shavings and sawdust are transported to the Transfer and Trim Saw Cyclones. Trim ends that are too small to be utilized at other off-site facilities are hogged and, like the sawdust, are routed to the Trim Saw Cyclone. The remaining trim ends are transferred off-site for use at other L-P facilities.

The hogged trim ends, planer byproducts, and sawdust join the waste stream for eventual deposition in the Truck Bin. The Trim Saw and Transfer Cyclones are point sources of PM and PM<sub>10</sub> emissions. The Planer Cyclone's exhaust vent emissions are routed directly to the Truck Bin Baghouse, which is a source of PM<sub>10</sub> emissions.

#### Fugitive Emission Sources

Fugitive PM and PM<sub>10</sub> emission sources at this facility are created by vehicle traffic on paved and unpaved roads and areas, woodwaste loadout from the truck bin, venting of the truck bin, handling of ash from the woodwaste boiler, and end coating (sealing paint) of finished product prior to short term storage.

##### **Vehicle Traffic**

Fugitive PM<sub>10</sub> emissions result from haul truck traffic on unpaved roads, material transfer, and front-end loader traffic in unpaved areas.

Other sources of fugitive PM<sub>10</sub> emissions result from haul trucks transporting green lumber on-site on paved roads, other facility vehicle traffic on paved roads, ash handling, and material handling of hogged fuel for the boiler.

##### **Dry Kilns**

The five (5) drying kilns process green lumber from off-site sources and are a significant source of VOC and condensable PM<sub>10</sub> emissions according to the present emissions information available. The dry kilns are considered to be the process throughput limiting operation (referred to as the process "bottleneck"). The kilns are capable of producing approximately 200 million board feet of finished lumber according to L-P personnel.

##### **Truck Bin Loadout and Venting**

Planer shavings, hogged trim ends, and shavings are loaded into haul trucks. The byproduct is from kiln-dried material and is, therefore, more likely to be a source of fugitive emissions. To abate PM<sub>10</sub> emissions, L-P currently has a two-sided enclosure in place.

#### PROJECT DESCRIPTION

Louisiana-Pacific has applied for a modification to the Tier II Operating Permit issued on July 7, 1995, by the Department. L-P has requested the alteration of the operating hour limits for each of the two (2) natural gas boilers to allow for increased operational flexibility. The natural gas boilers will have the ability to be operated whenever an economic advantage exists for burning natural gas to provide steam to the dry kilns. This would result in increased allowable emissions from the natural

gas boilers for all criteria pollutants. Concurrent operation of the Kipper and Sons woodwaste boiler and the two natural gas boilers would be necessary during switchover between the different emissions units that provide process steam.

#### Emission Limits

The natural gas boilers were previously limited to 720 hours of operation as applied for in the July 27, 1988, Permit to Construct (PTC) application, and incorporated in the February 27, 1989, operating permit. The increase in allowable operating hours results in an increase in allowable emissions for the natural gas boilers.

The natural gas boilers will be allowed to operate up to 8,760 hours per year with the granting of this modification. Therefore, Section 3, Operating Requirements, on Page 6 of 21 of the original Tier II Operating Permit has been deleted.

TABLE 1: Natural Gas Boilers Modification - Permit Emission Limit Increases

Source	Pollutant	Existing Allowable Emissions		Modified Allowable Emissions		NET Emissions Increase	
		lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
Boiler #1	PM/PM <sub>10</sub> <sup>a</sup>	0.22	0.08	0.22	0.97	0	0.89
	NO <sub>x</sub>	2.4	0.86	2.4	10.5	0	9.64
	CO	0.60	0.22	0.60	2.63	0	2.41
	VOC	0.04	0.02	0.04	0.18	0	0.16
	SO <sub>2</sub>	0.01	0.004	0.01	0.044	0	0.04
Boiler #2	PM/PM <sub>10</sub> <sup>a</sup>	0.22	0.08	0.22	0.97	0	0.89
	NO <sub>x</sub>	2.4	0.86	2.4	10.5	0	9.64
	CO	0.60	0.22	0.60	2.63	0	2.41
	VOC	0.04	0.02	0.04	0.18	0	0.16
	SO <sub>2</sub>	0.01	0.004	0.01	0.044	0	0.04

a Includes condensables

#### Monitoring, Recordkeeping, and Reporting Requirements

The hours of operation information originally required to be recorded and submitted in a report to DEQ in Section 4.1.3 on Page 6 of 21 have been deleted. The hours of operation data will not be an applicable reporting requirement for natural gas boiler operation in Section 5 on Page 7 of 21. Emission limits for the woodwaste boiler will remain unchanged with this modification request.

#### SUMMARY OF EVENTS

- July 7, 1995: Louisiana-Pacific's Sandpoint planer facility was issued a Tier II Operating Permit in accordance with the control strategy in the Sandpoint Area Particulate (PM10) Air Quality Improvement Plan for legally recognized RACT/RACM implementation for the Attainment Date Extension Project.
- July 14, 1995: DEQ received Louisiana-Pacific's application for a modification to the Tier II Operating Permit to increase allowable operating hours for the natural gas boilers.
- August 10, 1995: The application for the natural gas boiler operating hours modification was declared complete.

## DISCUSSION

### 1. Emission Estimates

Emission estimates for criteria pollutants were calculated using EPA AP-42 Section 1.4 emission factors for natural gas boilers. No other emission estimates were required beyond those for the natural gas boilers. See Appendix A for a copy of the emissions estimates.

### 2. Modeling

Computer modeling was performed for the demonstration of compliance with both the PM<sub>10</sub> and NO<sub>x</sub> National Ambient Air Quality Standard (NAAQS). The facility's location within the Sandpoint PM<sub>10</sub> Nonattainment Area requires that any increase in PM<sub>10</sub> emissions be analyzed against the Significant Contribution allowance. The annual and 24-hour allowable concentration increments are designed to maintain air quality within the PM<sub>10</sub> nonattainment area, but still allow industry a degree of flexibility for modifications to their process or facility.

Modeling was performed using ISCST3, an EPA-approved model designed for analyzing multiple point sources. Concurrent operation at rated capacity for the Kipper and Sons woodwaste boiler and two natural gas boilers for a period of two (2) hours was modeled to simulate a worst case "switchover" period when all three boilers will operate until steady-state steam production from the natural gas boilers is achieved.

The increase in NO<sub>x</sub> emissions was also modeled because the net emissions increase did not qualify for any exemption under the PTC provisions (IDAPA 16.01.01.200 of the Rules). Therefore, this constitutes a minor modification to a major facility.

The maximum modeled impacts for PM<sub>10</sub> were 3.7 micrograms per cubic meter (µg/m<sup>3</sup>) for the 24-hour standard, and 0.1 µg/m<sup>3</sup> for the annual standard at L-P's property boundary. The allowable 24 hour and annual significant contribution increments for PM<sub>10</sub> are 5.0 µg/m<sup>3</sup> and 1.0 µg/m<sup>3</sup>, respectively.

The maximum modeled impact result for NO<sub>x</sub> was 47.6 µg/m<sup>3</sup> for the annual standard at L-P's property boundary, taking background and co-contributing sources into account. The annual NAAQS standard for NO<sub>x</sub> is 100 µg/m<sup>3</sup>.

See Appendix D to review the technical memorandum that describes the modeling exercise performed for this project.

### 3. Area Classification

The L-P planer mill is located within the Sandpoint PM<sub>10</sub> Nonattainment Area. The area is currently classified as a "moderate" PM<sub>10</sub> nonattainment area. The area is designated as attainment or unclassifiable for all other criteria pollutants.

### 4. Facility Classification

Louisiana-Pacific (Sandpoint) is a major source as defined by IDAPA 16.01.01.006.54 for carbon monoxide (CO) emissions with a Tier II Operating Permit allowable annual emission limit of 201 tons per year (T/yr). L-P is not a designated facility, as defined in IDAPA 16.01.01.006.25 of the Rules.

### 5. Regulatory Review

The facility is subject to the following permitting requirements for this modification:

- |                                    |  |
|------------------------------------|--|
| a) <u>IDAPA 16.01.01.006.87,88</u> | General Definitions - Significant and Significant Contribution.                              |
| b) <u>IDAPA 16.01.01.200</u>       | Procedures and Requirements for Permits to Construct.  |
| c) <u>IDAPA 16.01.01.401.03(a)</u> | Tier II Operating Permit Required for Attainment of a National Ambient Air Quality Standard; |
| d) <u>IDAPA 16.01.01.403</u>       | Permit Requirements for Tier II Sources;   |
| e) <u>IDAPA 16.01.01.406</u>       | Obligation to Comply;  |
| f) <u>IDAPA 16.01.01.470</u>       | Permit Application Fees for Tier II Permits;   |

- g) IDAPA 16.01.01.625
- h) IDAPA 16.01.01.676

Visible Emissions Opacity Restrictions; and  
Particulate Matter Standards for New Fuel  
Burning Equipment Sources.

**FEES**

In accordance with IDAPA 16.01.01.470 of the Rules, L-P is subject to permit application fees for Tier II permits. The amount required is \$500.00. IDAPA 16.01.01.470 became effective on March 7, 1995.

**RECOMMENDATIONS**

Emission limits should be incorporated in the existing Tier II Operating Permit as listed in the located in Appendix B of this memorandum, and the provisions within the Tier II Operating Permit altered to match the revised permit pages found in Appendix C of this memorandum. Because this project is a minor modification to a major facility a public comment period nor a public hearing is required.

I also recommend that L-P be notified of the Tier II permit fee requirement in writing.

BRM\SJR\DM:jrg:lp\_npm04.TMM

cc: D. Redline, NIRO  
Source File  
COF 1.1

**Appendix A**

**Louisiana-Pacific Corporation  
Sandpoint Planer Mill**

**Modification Emissions Estimates**

L-P - SANDPOINT NATURAL GAS BOILERS TIER II PERMIT MOD.

EXISTING ANNUAL  $PM_{10}/PM$  EMISSION LIMIT (EACH BOILER):

0.08 TON/YR OR 0.15 T/yr BOTH BOILERS

REQUESTED ANNUAL  $PM_{10}/PM$  EMISSION LIMIT:

0.964 TON/yr EACH BOILER OR 1.93 TON/YR BOTH BOILERS.

NET  $PM_{10}/PM$  INCREASE: 1.77-TON/YR BOTH BOILERS.

NOx:

EXISTING ANNUAL NOx EMISSIONS LIMIT:

0.86 TON/YR EACH BOILER OR 1.72 TON/YR BOTH BOILERS

REQUESTED ANNUAL NOx EMISSION LIMIT:

10.5 TON/YR EACH BOILER OR 21.0 TON/YR BOTH BOILERS

NET NOx INCREASE = 19.3 TON/YR BOTH BOILERS.

VOC's, CO, AND SO<sub>2</sub> EMISSIONS WILL INCREASE IN IDENTICAL MANNER BUT  $PM_{10}$  & NOx ARE THE POLLUTANTS OF CONCERN DUE TO PLANT LOCATION IN A  $PM_{10}$  "MODERATE" NONATTAINMENT AREA.

IDAPA 16.01.01.006.B? (Significant). Levels of Emissions.

xvi.  $PM_{10}$ : 15 TON/YR.

ii. NOx: 40 TON/YR.

Policy:

ANY MODIFICATION  $\leq 10\%$  OF SIGNIFICANT LEVEL IS BELOW REGULATORY CONCERN.

$PM_{10}$ :  $(0.10)(15 \text{ T/yr}) = 1.5 \text{ T/yr } PM_{10}$   $1.72 > 1.5 \text{ T/yr} \Rightarrow$  Model

NOx:  $(0.10)(40 \text{ T/yr}) = 4.0 \text{ T/yr NOx}$   $19.3 > 4.0 \text{ T/yr} \Rightarrow$  Model

L-P SANDPOINT TIER II PERMIT MODIFICATIONNatural Gas Boilers #1, #2:

$$\left(0.22 \frac{\text{lb}}{\text{hr}}\right) \left(\frac{454 \text{ grams}}{1 \text{ lb}}\right) \left(\frac{1 \text{ hr}}{3600 \text{ seconds}}\right) = \underline{0.0277 \text{ gram/sec. EACH BOILER}}$$

$$\frac{\text{TON/YR: (PM}_{10}\text{) (PM)}}{\left(0.22 \frac{\text{lb}}{\text{hr}}\right) \left(8760 \frac{\text{hr}}{\text{yr}}\right) \left(\frac{\text{Ton}}{2000 \text{ lb}}\right)} = \underline{0.964 \text{ Ton/yr. EACH BOILER}}$$

NO<sub>x</sub>:

$$\left(2.4 \frac{\text{lb}}{\text{hr}}\right) \left(\frac{454 \text{ gram}}{1 \text{ lb}}\right) \left(\frac{1 \text{ hr}}{3600 \text{ sec}}\right) = \underline{0.303 \text{ gram/sec EACH BOILER}}$$

ANNUAL NO<sub>x</sub>:

$$\left(2.4 \frac{\text{lb}}{\text{hr}}\right) \left(8760 \frac{\text{hr}}{\text{yr}}\right) \left(\frac{\text{Ton}}{2000 \text{ lb}}\right) = \underline{10.5 \text{ Ton NO}_x/\text{yr EACH BOILER}}$$

(PM<sub>10</sub>):MODEL EACH NATURAL GAS BOILER AT  $0.0277 \frac{\text{gram}}{\text{sec}}$  FOR  $8760 \frac{\text{hr}}{\text{yr}}$ MODEL WOODWASTE BOILER AT  $6.93 \text{ lb/hr PM}_{10}$  ( $0.874 \frac{\text{gram}}{\text{sec}}$ )  
FOR 1 hr concurrently with Natural Gas Boilers.FOR NO<sub>x</sub>:MODEL EACH NATURAL GAS BOILER AT  $0.303 \text{ gram/sec}$  FOR  $8760 \frac{\text{hr}}{\text{yr}}$ MODEL WOODWASTE BOILER AT  $15.6 \text{ lb/hr NO}_x$  ( $1.97 \text{ gram/sec}$ )

for 1 hr concurrently with Natural Gas Boilers.

MODELING PARAMETERS:

EXIT TEMPERATURE: 445 °F

EXHAUST FLOW RATE: 5,193 ACFM @ 2100 FT. ELEVATION.

EXHAUST VELOCITY: 27.55 FT/SECOND.

L-P - SANDPOINT TIER II MODIFICATION

Natural Gas Boiler Emission Limits (Continued):

$$\text{ALLOWABLE EMISSIONS (TON/YEAR)} = \frac{\text{ALLOWABLE EMISSIONS [lb/hr]} \times 8760 \frac{\text{hr}}{\text{yr}}}{(2000 \frac{\text{lb}}{\text{TON}})}$$

Natural Gas Boilers #1, #2:

SOURCE: TIER II OPERATING PERMIT APPENDIX A, ISSUED JULY 7, '95

POLLUTANT	HOURLY ALLOWABLE EMISSIONS [lb/hr]	PROPOSED ANNUAL ALLOWABLE EMISSIONS [TON/YR]	EXISTING ANNUAL ALLOWABLE EMISSIONS [TON/YR]	NET INCREASE ANNUAL ALLOWABLE EMISSIONS [TON/YR]
CO	0.60	2.13	0.22	2.4
VOCs	0.04	0.18	0.02	0.16
SO <sub>2</sub>	0.01	0.044	0.004	0.040

Appendix B

Louisiana-Pacific Corporation  
Sandpoint Planer Mill

Modified  
Permit Allowable Emission Limit Tables

## APPENDIX A

TABLE 1

Louisiana Pacific, Sandpoint Planing Mill  
PM<sub>10</sub> Emission Limits<sup>a</sup> - Hourly (lb/hr), and Annual<sup>b</sup> (T/yr)

Source Description	Hourly PM <sub>10</sub> <sup>c</sup> Emissions (lb/hr) before 7/1/96 <sup>d</sup>	Annual PM <sub>10</sub> <sup>c</sup> Emissions (T/yr) before 7/1/96 <sup>d</sup>	Annual PM <sub>10</sub> <sup>c</sup> Emissions (lb/hr) after 7/1/96 <sup>d</sup>	Annual PM <sub>10</sub> <sup>c</sup> Emissions (T/yr) after 7/1/96 <sup>d</sup>
Kipper & Sons Woodwaste Boiler	6.93	30.4	6.93	30.4
EFB Baghouse Vent	0.23	1.02	0.23	1.02
Natural Gas Boiler #1	0.22	0.97	0.22	0.97
Natural Gas Boiler #2	0.22	0.97	0.22	0.97
Truck Bin Baghouse Vent	1.24	3.86	1.24	5.42
Transfer Cyclone	1.03	3.21	1.03	4.51
Trim Saw Cyclone	0.51	1.60	0.00	0.00
Lumber Drying Kilns (5 kiln rooms)	3.04	13.3	5.1	22.5
Woodwaste Boiler Ash Handling	0.11	0.40	0.16	0.68
Truck Bin Loadout Operation	1.80	6.59	0.51	2.23
Truck Bin Vent	0.15	0.56	0.14	0.63
End Coating Operation	0.25	0.90	0.10	0.46
Vehicle Traffic - Unpaved Areas	0.14	0.52	0.00	0.00
Vehicle Traffic - Paved Areas	0.23	0.84	0.36	1.56

- a As determined by a pollutant specific U.S. EPA reference method, or a Department approved alternative, or as determined by the Departments's emission estimation methods used in this permit analysis.
- b As determined by multiplying the actual or allowable (if actual is not available) pound per hour emission rate by the allowable hours per year that the process(es) may operate(s), or by actual annual production rates.
- c Includes condensables.
- d Or such earlier date as all required Conditional Control Measures have been completed.

ISSUED: July 7, 1995  
EXPIRES: July 7, 2000

APPENDIX A

TABLE 2

Louisiana Pacific, Sandpoint Planing Mill

Emission Limits<sup>a</sup> - Hourly (lb/hr) and Annual<sup>b</sup> (T/yr)

Source Description	PM <sup>c</sup>		NO <sub>x</sub>		CO		VOC		SO <sub>2</sub>	
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr
1. Kipper & Sons Woodwaste Boiler	6.93	30.4	15.6	56.4	60.0	201.6	7.8	28.2	0.84	3.03
2. Natural Gas Boiler #1	0.22	0.97	2.4	10.5	0.60	2.63	0.04	0.18	0.01	0.044
3. Natural Gas Boiler #2	0.22	0.97	2.4	10.5	0.60	2.63	0.04	0.18	0.01	0.044

- a As determined by a pollutant specific U.S. EPA reference method, or a Department approved alternative, or as determined by the Department's emission estimation methods used in this permit analysis.
- b As determined by multiplying the actual or allowable (if actual is not available) pound per hour emission rate by the allowable hours per year that the process(es) may operate(s), or by actual annual production rates.
- c Includes condensables.

ISSUED: July 7, 1995  
EXPIRES: July 7, 2000

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Appendix C

Louisiana-Pacific Corporation  
Sandpoint Planer Mill

Modified  
Permit Permit Conversions

## AIR POLLUTION OPERATING PERMIT

## PERMIT NUMBER

## PERMITTEE AND LOCATION

Louisiana-Pacific Corporation  
Planing Mill  
Sandpoint, Idaho

017 - 00003

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

## SOURCE

Natural Gas Boilers

## 1. SOURCE DESCRIPTION

1.1 Process Description

In the event that the woodwaste boiler is shut down, two (2) natural gas boilers supply steam to the dry kilns.

1.1.1 Manufacturer: Cleaver Brooks 400 HP (XZ). Model #CB7 60-400 (XZ), Rated Capacity: 14,000 lb steam/hr (each).

1.2 Controls

Emissions from the two (2) natural gas fired boilers are uncontrolled and each vents through a separate stack.

## 2. EMISSION LIMITS

- 2.1 Particulate matter (PM) emissions from the two (2) natural gas fired stacks shall each not exceed 0.015 grains per standard dry cubic foot of effluent gas adjusted to three percent (3%) by volume (IDAPA 16.01.01.677), nor shall they exceed the pound per hour (lb/hr) and ton per year (T/yr) values listed in Appendix A.
- 2.2 Particulate matter emissions with aerodynamic diameters less than 10 microns (PM<sub>10</sub>), carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>), and volatile organic compound (VOC) emissions shall not exceed the pound per hour (lb/hr) and ton per year (T/yr) values listed in Appendix A.
- 2.3 Visible emissions from the natural gas fired boiler stacks shall not exceed twenty percent (20%) opacity for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period, as determined by the Department's "Procedures Manual for Air Pollution Control" (IDAPA 16.01.01.625).

## 4. TESTING AND MONITORING REQUIREMENTS

- 4.1 The following information corresponding to operation shall be recorded and maintained on-site for the most recent two (2) year period:
  - 4.1.1 The total monthly natural gas usage for each of the natural gas boilers.
  - 4.1.2 Total steam production (tons) according to the following conversion factor: 1400 Btu heat input per pound of steam produced.

ISSUED: July 7, 1995  
EXPIRES: July 7, 2000

DAM:jrd.../permit/lpsandpt.pmt

## AIR POLLUTION OPERATING PERMIT

## PERMITTEE AND LOCATION

Louisiana-Pacific Corporation  
Planing Mill  
Sandpoint, Idaho

## PERMIT NUMBER

017 - 00003

The Permittee is hereby allowed to operate the equipment described herein subject to the emission limits and monitoring and reporting requirements specified in this permit.

## SOURCE

Natural Gas Boilers

## 5. REPORTING REQUIREMENTS

- 5.1 The Permittee shall submit the monitoring data on operating rates required in Section 4 of this permit section to the Department in a semi-annual report.

ISSUED: July 7, 1995  
EXPIRES: July 7, 2000

DAM:jrd.../permit/lpsandpt.pmt

**Appendix D**

**Louisiana-Pacific Corporation  
Sandpoint Planer Mill**

**Modification Ambient Impact Assessment Memorandum**

September 6, 1995

M E M O R A N D U M

TO: Robert Wilkosz, Chief  
Technical Services Bureau (TSB),  
Permits and Enforcement (P&E)

FROM: Mary Walsh *MW*  
Environmental Trainee  
TSB, P&E

THRU: Avijit Ray *Ray*  
Environmental Sciences Manager  
TSB, P&E

SUBJECT: Modeling/Impact Assessment for Louisiana-Pacific  
(Sandpoint)

1. SUMMARY

Louisiana-Pacific in Sandpoint, Idaho is a planing mill which produces kiln-dried dimensional lumber. Combustion sources include a Kipper and Sons Woodwaste Boiler and two Cleaver Brooks Natural Gas Boilers. The Woodwaste Boiler is permitted to operate nearly continuously in order to supply the drying kilns with enough steam to reduce excess moisture in the green lumber. The two natural gas burners are permitted to act as backup boilers operating when the Woodwaste Boiler and/or its pollution control equipment are shutdown for maintenance. The facility has proposed a modification to its Tier II Operating Permit involving the continuous use of the Natural Gas Boilers with a two hour startup time during which all three boilers would be in operation. ✓

Analysis of the impact of this modification on the  $PM_{10}$  and  $NO_x$  concentrations was carried out using a draft of the ISCST3 model. Since Sandpoint is a nonattainment area for  $PM_{10}$ , significant impacts are defined as  $5 \mu g/m^3$  for the 24-hour average and  $1 \mu g/m^3$  for the annual average. ISC modeling results indicated that both the 24-hour and annual  $PM_{10}$  averages were within the significant contribution limits specified by the IDAPA 16.01.01.006.88.e. in the Rules for the Control of Air Pollution in Idaho (Rules). Results further showed that the annual average  $NO_x$  concentration was well within the National Ambient Air Quality Standards (NAAQS).

2. DISCUSSION

2.1 Project Description

The Woodwaste Boiler is designed to produce 60,000 pounds of steam per hour from the combustion of woodwaste having a

moisture content of about 50%. Both a multiclone and electrified filter bed are utilized to control  $PM_{10}$  emissions from this boiler. Each of the Natural Gas Boilers has a rated capacity of 14,000 pounds of steam per hour. Emissions from these units are vented through different stacks and are not passed through any control technology devices. At present, the Natural Gas Boilers are not turned on until the Woodwaste Boiler has already been shutdown for maintenance. The company would like the option of using Natural Gas Boilers continuously. It is also proposed by the company to include in the operating permit a two hour period of time during which the Natural Gas Boilers would be turned on in preparation of the shutdown of the Woodwaste Boiler.

## 2.2 Applicable Air Quality Impact Limits

Sandpoint is a nonattainment area for  $PM_{10}$ , therefore, no subsequent sources may have a significant impact greater than  $5 \mu g/m^3$  for the 24-hour average or  $1 \mu g/m^3$  annually. The NAAQS for  $NO_2$  is  $100 \mu g/m^3$  annually.

## 2.3 Background Concentrations

$PM_{10}$  background concentrations are above the applicable  $PM_{10}$  NAAQS of  $150 \mu g/m^3$ . Background concentrations for  $NO_2$  were estimated to be  $40 \mu g/m^3$  for the annual average based upon the national average for NAMS  $NO_x$  monitoring sites.

## 2.4 Co-contributing Sources

Co-contributing sources for  $PM_{10}$  concentrations were not considered due to the area's nonattainment classification. For the most complete evaluation, Natural Gas Boiler emissions from Lignetics, Inc. and L.D. McFarland were considered in the  $NO_x$  analysis. One other potential co-contributor, Interstate Concrete and Asphalt in Sandpoint, was considered for the analysis but  $NO_x$  emissions from this facility were found to be below significant levels specified in IDAPA 16.01.01.006.87.a.ii.

## 2.5 Modeling Impact Assessment

A draft of the ISCST3 model was used with 1991 surface and upper air meteorological data from Spokane, Washington. Annual and 24-hour  $PM_{10}$  impacts have already been analyzed for the Woodwaste Boiler under the SIP attainment demonstration modeling. Since emissions from the Woodwaste

Boiler are significantly high compared to the Natural Gas Boilers this analysis represented the worst case impact assessment for all of Louisiana-Pacific's boilers. Thus only the impact of the startup period was assessed in this study since this would be the only time that an actual increase in emissions would occur. This analysis also constitutes a worst case determination of the annual  $\text{NO}_x$  concentrations from all sources at Louisiana Pacific. The analysis also included the potential effects of co-contributing sources upon  $\text{NO}_x$  impacts. The maximum predicted annual concentration for all  $\text{NO}_x$  emitting sources (including co-contributors) was found to be  $7.62 \mu\text{g}/\text{m}^3$ . The maximum predicted concentration along the Louisiana-Pacific property boundary (without considering co-contributing sources) was  $2.98 \mu\text{g}/\text{m}^3$ . Post construction  $\text{NO}_x$  impacts were conservatively predicted to be well within the applicable NAAQS. The following chart compares the predicted pollutant concentrations with the allowable limits and demonstrates that the modifications will not lead to excess impacts at the proposed emission rates.

<u>POLLUTANT</u>	<u>Predicted</u> <u>Conc.</u> <u>(<math>\mu\text{g}/\text{m}^3</math>)</u>	<u>Ave.</u> <u>Per.</u>	<u>Allowable</u> <u>Conc.</u> <u>(<math>\mu\text{g}/\text{m}^3</math>)</u>	<u>Impact</u> <u>Limit</u> <u>(%)</u>
$\text{PM}_{10}$	3.7	24-hr	5.0	74
$\text{PM}_{10}$	0.1	annual	1.0	10
$\text{NO}_x$ (source)	3.0	annual	100.0	3
$\text{NO}_x$ (w/co-contr)	7.6	annual	100.0	8
(post constr)	47.6	annual	100.0	48

### 3. MODELING RESULTS

See attachments. Electronic copies saved on the hard disk as  
c:\isc2dft1\lpsand.out

MW\ve lpsand.tec

Attachments

cc: COF (w/o attachments)  
D. Mehr  
K. Viswanathan

CO STARTING  
 CO TITLEONE IMPACTS FROM LP FACILITY FOR TIER II PERMIT MODIFICATION  
 CO TITLETWO MODELING FOR PM10, & NOx  
 CO MODELOPT CONC RURAL NOSTD NOCALM  
 CO AVERTIME 24 PERIOD  
 CO POLLUTID OTHER  
 CO DCAYCOEF .000000  
 CO RUNORNOT RUN  
 CO ERRORFIL ERRORS.OUT  
 CO FINISHED

SO STARTING

\*\* Source Location Cards:

** SOURCE ID	SRCTYP	XS	YS	ZS
SO LOCATION EFB	POINT	533133	5347684	0
SO LOCATION EFBBH	POINT	533145	5347681	0
SO LOCATION EFBN	POINT	533133	5347684	0
SO LOCATION NGB1P	POINT	533058	5347653	0
SO LOCATION NGB2P	POINT	533058	5347662	0
SO LOCATION NGB1N	POINT	533058	5347653	0
SO LOCATION NGB2N	POINT	533058	5347662	0
SO LOCATION LD_GAS	POINT	532465	5348020	0
SO LOCATION LG_NGB	POINT	535333	5350424	0

\*\* Source Parameter Cards:

** POINT:	SRCID	QS	HS	TS	VS	DS
** VOLUME:	SRCID	QS	HS	SYNIT	SZINIT	
** AREA:	SRCID	QS	HS	XINIT		

SO SRCPARAM EFB	0.1576	24.384	428.703	16.368	1.422
SO SRCPARAM EFBBH	0.0270	7.620	344.744	30.976	0.311
SO SRCPARAM EFBN	1.9700	24.384	428.703	16.368	1.422
SO SRCPARAM NGB1P	0.0277	7.010	445.000	8.403	0.610
SO SRCPARAM NGB2P	0.0277	7.010	445.000	8.403	0.610
SO SRCPARAM NGB1N	0.3030	7.010	445.000	8.403	0.610
SO SRCPARAM NGB2N	0.3030	7.010	445.000	8.403	0.610
SO SRCPARAM LD_GAS	0.0844	6.100	463.000	10.000	0.600
SO SRCPARAM LG_NGB	0.5466	12.200	463.000	10.000	0.610

\*\* DOWNWASH

SO BUILDHGT EFB	16.46	19.51	19.51	19.51	19.51	19.51
SO BUILDHGT EFB	19.51	19.51	19.51	19.51	19.51	19.51
SO BUILDHGT EFB	19.51	19.51	19.51	16.46	16.46	16.46
SO BUILDHGT EFB	16.46	19.51	19.51	19.51	19.51	19.51
SO BUILDHGT EFB	19.51	19.51	19.51	19.51	19.51	19.51
SO BUILDHGT EFB	19.51	19.51	19.51	16.46	16.46	16.46
SO BUILDWID EFB	18.19	17.95	21.16	23.73	25.58	26.65
SO BUILDWID EFB	26.91	26.36	25.00	25.49	25.20	24.15
SO BUILDWID EFB	22.37	19.90	16.83	19.82	18.19	52.00
SO BUILDWID EFB	18.19	17.95	21.16	23.73	25.58	26.65
SO BUILDWID EFB	26.91	26.36	25.00	25.49	25.20	24.15
SO BUILDWID EFB	22.37	19.90	16.83	19.82	18.19	52.00
SO BUILDHGT EFBN	16.46	19.51	19.51	19.51	19.51	19.51
SO BUILDHGT EFBN	19.51	19.51	19.51	19.51	19.51	19.51
SO BUILDHGT EFBN	19.51	19.51	19.51	16.46	16.46	16.46
SO BUILDHGT EFBN	16.46	19.51	19.51	19.51	19.51	19.51
SO BUILDHGT EFBN	19.51	19.51	19.51	19.51	19.51	19.51
SO BUILDHGT EFBN	19.51	19.51	19.51	16.46	16.46	16.46
SO BUILDWID EFBN	18.19	17.95	21.16	23.73	25.58	26.65
SO BUILDWID EFBN	26.91	26.36	25.00	25.49	25.20	24.15
SO BUILDWID EFBN	22.37	19.90	16.83	19.82	18.19	52.00
SO BUILDWID EFBN	18.19	17.95	21.16	23.73	25.58	26.65
SO BUILDWID EFBN	26.91	26.36	25.00	25.49	25.20	24.15

SO BUILDWID EFBN	22.37	19.90	16.83	19.82	18.19	52.00
SO BUILDHGT EFBBH	16.46	19.51	19.51	19.51	19.51	19.51
SO BUILDHGT EFBBH	19.51	19.51	19.51	19.51	19.51	19.51
SO BUILDHGT EFBBH	19.51	19.51	19.51	16.46	16.46	16.46
SO BUILDHGT EFBBH	16.46	19.51	19.51	19.51	19.51	19.51
SO BUILDHGT EFBBH	19.51	19.51	19.51	19.51	19.51	19.51
SO BUILDHGT EFBBH	19.51	19.51	19.51	16.46	16.46	16.46
SO BUILDWID EFBBH	18.19	17.95	21.16	23.73	25.58	26.65
SO BUILDWID EFBBH	26.91	26.36	25.00	25.49	25.20	24.15
SO BUILDWID EFBBH	22.37	19.90	16.83	19.82	18.19	52.00
SO BUILDWID EFBBH	18.19	17.95	21.16	23.73	25.58	26.65
SO BUILDWID EFBBH	26.91	26.36	25.00	25.49	25.20	24.15
SO BUILDWID EFBBH	22.37	19.90	16.83	19.82	18.19	52.00
SO BUILDHGT NGB1P	9.75	9.75	9.75	9.75	7.93	7.93
SO BUILDHGT NGB1P	7.93	7.93	7.93	7.93	7.93	7.93
SO BUILDHGT NGB1P	7.93	7.93	7.93	7.93	7.93	7.93
SO BUILDHGT NGB1P	7.93	7.93	7.93	7.93	7.93	19.51
SO BUILDHGT NGB1P	19.51	19.51	16.46	7.93	7.93	7.93
SO BUILDHGT NGB1P	7.93	7.93	7.93	7.93	9.75	9.75
SO BUILDWID NGB1P	57.34	64.94	70.57	74.05	46.44	47.74
SO BUILDWID NGB1P	47.59	45.99	43.00	45.99	47.59	47.74
SO BUILDWID NGB1P	46.44	43.73	39.69	34.44	28.15	21.00
SO BUILDWID NGB1P	28.15	34.44	39.69	43.73	46.44	26.65
SO BUILDWID NGB1P	26.91	26.36	32.00	45.99	47.59	47.74
SO BUILDWID NGB1P	46.44	43.73	39.69	34.44	48.54	48.00
SO BUILDHGT NGB2P	7.93	7.93	7.93	7.93	7.93	7.93
SO BUILDHGT NGB2P	7.93	7.93	7.93	7.93	7.93	7.93
SO BUILDHGT NGB2P	7.93	7.93	7.93	7.93	7.93	7.93
SO BUILDHGT NGB2P	7.93	7.93	7.93	7.93	7.93	7.93
SO BUILDHGT NGB2P	19.51	19.51	19.51	16.46	7.93	7.93
SO BUILDHGT NGB2P	7.93	7.93	7.93	7.93	7.93	7.93
SO BUILDWID NGB2P	28.15	34.44	39.69	43.73	46.44	47.74
SO BUILDWID NGB2P	47.59	45.99	43.00	45.99	47.59	47.74
SO BUILDWID NGB2P	46.44	43.73	39.69	34.44	28.15	21.00
SO BUILDWID NGB2P	28.15	34.44	39.69	43.73	46.44	47.74
SO BUILDWID NGB2P	26.91	26.36	25.00	16.57	47.59	47.74
SO BUILDWID NGB2P	46.44	43.73	39.69	34.44	28.15	21.00
SO BUILDHGT NGB1N	9.75	9.75	9.75	9.75	7.93	7.93
SO BUILDHGT NGB1N	7.93	7.93	7.93	7.93	7.93	7.93
SO BUILDHGT NGB1N	7.93	7.93	7.93	7.93	7.93	7.93
SO BUILDHGT NGB1N	7.93	7.93	7.93	7.93	7.93	19.51
SO BUILDHGT NGB1N	19.51	19.51	16.46	7.93	7.93	7.93
SO BUILDHGT NGB1N	7.93	7.93	7.93	7.93	9.75	9.75
SO BUILDWID NGB1N	57.34	64.94	70.57	74.05	46.44	47.74
SO BUILDWID NGB1N	47.59	45.99	43.00	45.99	47.59	47.74
SO BUILDWID NGB1N	46.44	43.73	39.69	34.44	28.15	21.00
SO BUILDWID NGB1N	28.15	34.44	39.69	43.73	46.44	26.65
SO BUILDWID NGB1N	26.91	26.36	32.00	45.99	47.59	47.74
SO BUILDWID NGB1N	46.44	43.73	39.69	34.44	48.54	48.00
SO BUILDHGT NGB2N	7.93	7.93	7.93	7.93	7.93	7.93
SO BUILDHGT NGB2N	7.93	7.93	7.93	7.93	7.93	7.93
SO BUILDHGT NGB2N	7.93	7.93	7.93	7.93	7.93	7.93
SO BUILDHGT NGB2N	7.93	7.93	7.93	7.93	7.93	7.93
SO BUILDHGT NGB2N	19.51	19.51	19.51	16.46	7.93	7.93
SO BUILDHGT NGB2N	7.93	7.93	7.93	7.93	7.93	7.93
SO BUILDWID NGB2N	28.15	34.44	39.69	43.73	46.44	47.74
SO BUILDWID NGB2N	47.59	45.99	43.00	45.99	47.59	47.74
SO BUILDWID NGB2N	46.44	43.73	39.69	34.44	28.15	21.00
SO BUILDWID NGB2N	28.15	34.44	39.69	43.73	46.44	47.74
SO BUILDWID NGB2N	26.91	26.36	25.00	16.57	47.59	47.74
SO BUILDWID NGB2N	46.44	43.73	39.69	34.44	28.15	21.00
SO BUILDHGT LD_GAS	36*5.0					
SO BUILDWID LD_GAS	26.59	28.37	29.28	29.31	28.45	26.72
SO BUILDWID LD_GAS	24.18	20.91	17.00	20.91	24.18	26.72
SO BUILDWID LD_GAS	28.45	29.31	29.28	28.37	26.59	24.00

SO BUILDWID LD\_GAS 26.59 28.37 29.28 29.31 28.45 26.72  
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 SO BUILDWID LD\_GAS 28.45 29.31 29.28 28.37 26.59 24.00  
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 SO BUILDWID LG\_NGB 65.45 69.79 72.00 72.03 69.86 65.58  
 SO BUILDWID LG\_NGB 59.30 51.22 41.59 46.12 55.91 64.00  
 SO BUILDWID LG\_NGB 70.15 74.16 75.93 75.38 72.55 67.51  
 SO BUILDWID LG\_NGB 65.45 69.79 72.00 72.03 69.86 65.58  
 SO BUILDWID LG\_NGB 59.30 51.22 41.59 46.12 55.91 64.00

SO EMISFACT EFB SEASHR 2\*1 22\*0 24\*0 24\*0 24\*0  
 SO EMISFACT EFBH SEASHR 2\*1 22\*0 24\*0 24\*0 24\*0  
 SO EMISFACT EFBN SEASHR 24\*1 24\*1 24\*1 24\*1  
 SO EMISFACT NGB1P HROFDY 2\*1 22\*0  
 SO EMISFACT NGB2P HROFDY 2\*1 22\*0  
 SO EMISFACT NGB1N HROFDY 2\*1 22\*0  
 SO EMISFACT NGB2N HROFDY 2\*1 22\*0  
 SO EMISFACT LD\_GAS SEASHR 24\*1 24\*1 24\*1 24\*1  
 SO EMISFACT LG\_NGB SEASHR 24\*1 24\*1 24\*1 24\*1

SO EMISUNIT .100000E+07 (GRAMS/SEC) (MICROGRAMS-PER-CUBIC-METER)  
 SO SRCGROUP PM10 NGB1P NGB2P EFB EFBH  
 SO SRCGROUP NOX NGB1N NGB2N EFBN LD\_GAS LG\_NGB  
 SO SRCGROUP NOXLP EFBN NGB1N NGB2N  
 \*\*SO SRCGROUP NLDLG LD\_GAS LG\_NGB  
 SO SRCGROUP NOXLD LD\_GAS  
 SO SRCGROUP NOXLG LG\_NGB  
 SO FINISHED

\*\* NEW RECEPTOR INFORMATION FOR LIGNETICS AND LD McFARLAND (CO-CONTRIBUTORS)  
 RE STARTING

RE GRIDCART CAR STA  
 RE GRIDCART CAR XYINC 530735. 16 402.325 5344326. 21 402.325  
 RE GRIDCART CAR END

RE GRIDPOLR Lig STA  
 RE GRIDPOLR Lig ORIG 535357.5 5350417.0  
 RE GRIDPOLR Lig DIST 200.0 250.0 325.0  
 RE GRIDPOLR Lig DDIR 10.00 20.00 30.00 40.00 50.00 60.00  
 RE GRIDPOLR Lig DDIR 70.00 80.00 90.00 100.00 110.00 120.00  
 RE GRIDPOLR Lig DDIR 130.00 140.00 150.00 160.00 170.00 180.00  
 RE GRIDPOLR Lig DDIR 190.00 200.00 240.00  
 RE GRIDPOLR Lig DDIR 250.00 260.00 270.00 280.00 290.00 300.00  
 RE GRIDPOLR Lig DDIR 310.00 320.00 330.00 340.00 350.00 360.00  
 RE GRIDPOLR Lig END

RE GRIDPOLR LP STA  
 RE GRIDPOLR LP ORIG 533062.0 5347500.0  
 RE GRIDPOLR LP DIST 200.0 275.0  
 RE GRIDPOLR LP DDIR 10.00 20.00 30.00 40.00 50.00 60.00  
 RE GRIDPOLR LP DDIR 70.00 80.00 90.00 100.00 110.00 120.00  
 RE GRIDPOLR LP DDIR 130.00 140.00 150.00 160.00 170.00 180.00  
 RE GRIDPOLR LP DDIR 190.00 200.00 210.00 220.00 230.00 240.00  
 RE GRIDPOLR LP DDIR 250.00 260.00 270.00 280.00 290.00 300.00  
 RE GRIDPOLR LP DDIR 310.00  
 RE GRIDPOLR LP END

RE GRIDPOLR McF&ICA STA

RE GRIDPOLR McF&ICA ORIG 532553.3 5348246.5  
 RE GRIDPOLR McF&ICA DIST 600.0 700.0  
 RE GRIDPOLR McF&ICA DDIR 10.00 20.00 30.00 40.00 50.00 60.00  
 RE GRIDPOLR McF&ICA DDIR 70.00 80.00 90.00 100.00 110.00 120.00  
 RE GRIDPOLR McF&ICA DDIR 130.00 140.00 150.00 160.00 170.00 180.00  
 RE GRIDPOLR McF&ICA DDIR 190.00 200.00 210.00 220.00 230.00 240.00  
 RE GRIDPOLR McF&ICA DDIR 250.00 260.00 270.00 280.00 290.00 300.00  
 RE GRIDPOLR McF&ICA DDIR 310.00 320.00 330.00 340.00 350.00 360.00  
 RE GRIDPOLR McF&ICA END

**\*\* RECEPTORS ALONG PROPERTY BOUNDARY OF L-P SANDPOINT**

RE DISCCART 533150 5347407  
 RE DISCCART 533151 5347386  
 RE DISCCART 533103 5347386  
 RE DISCCART 533103 5347358  
 RE DISCCART 533003 5347358  
 RE DISCCART 532978 5347358  
 RE DISCCART 532952 5347432  
 RE DISCCART 532961 5347479  
 RE DISCCART 532961 5347497  
 RE DISCCART 532953 5347601  
 RE DISCCART 532951 5347701  
 RE DISCCART 532950 5347801  
 RE DISCCART 532949 5347870  
 RE DISCCART 533047 5347853  
 RE DISCCART 533127 5347815  
 RE DISCCART 533097 5347829  
 RE DISCCART 533130 5347752  
 RE DISCCART 533174 5347753  
 RE DISCCART 533184 5347718  
 RE DISCCART 533188 5347681  
 RE DISCCART 533188 5347581  
 RE DISCCART 533188 5347481  
 RE DISCCART 533188 5347408

**\*\* DISCRETE RECEPTORS FOR VARIOUS FACILITIES**

RE DISCCART 535202.00 5350500.00  
 RE DISCCART 535202.00 5350450.00  
 RE DISCCART 535202.00 5350400.00  
 RE DISCCART 535202.00 5350350.00  
 RE DISCCART 535250.00 5350543.00  
 RE DISCCART 535300.00 5350543.00  
 RE DISCCART 535350.00 5350543.00  
 RE DISCCART 535400.00 5350543.00  
 RE DISCCART 535450.00 5350543.00  
 RE DISCCART 535504.00 5350500.00  
 RE DISCCART 535504.00 5350450.00  
 RE DISCCART 535504.00 5350400.00  
 RE DISCCART 535504.00 5350350.00  
 RE DISCCART 535504.00 5350329.00  
 RE DISCCART 532945.00 5347273.00  
 RE DISCCART 532945.00 5347373.50  
 RE DISCCART 532945.00 5347475.00  
 RE DISCCART 532945.00 5347574.50  
 RE DISCCART 532945.00 5347675.00  
 RE DISCCART 533185.00 5347273.00  
 RE DISCCART 533185.00 5347373.50  
 RE DISCCART 533185.00 5347474.00  
 RE DISCCART 533185.00 5347574.50  
 RE DISCCART 533185.00 5347675.00  
 RE DISCCART 532144.00 5347807.00  
 RE DISCCART 532144.00 5347917.00  
 RE DISCCART 532144.00 5348137.00  
 RE DISCCART 532144.00 5348247.00

RE DISCCART 532144.00 5348357.00  
RE DISCCART 532144.00 5348467.00  
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RE DISCCART 532144.00 5348686.00  
RE DISCCART 532246.50 5348686.00  
RE DISCCART 532349.00 5348686.00  
RE DISCCART 532451.50 5348686.00  
RE DISCCART 532554.00 5348686.00  
RE DISCCART 532656.50 5348686.00  
RE DISCCART 532759.00 5348686.00  
RE DISCCART 532861.50 5348686.00  
RE DISCCART 532963.00 5348686.00  
RE DISCCART 532963.00 5347807.00  
RE DISCCART 532963.00 5347917.00  
RE DISCCART 532963.00 5348027.00  
RE DISCCART 532963.00 5348137.00  
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RE DISCCART 532963.00 5348357.00  
RE DISCCART 532963.00 5348467.00  
RE DISCCART 532963.00 5348577.00  
RE DISCCART 532246.50 5347807.00  
RE DISCCART 532349.00 5347807.00  
RE DISCCART 532451.50 5347807.00  
RE DISCCART 532554.00 5347807.00  
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RE DISCCART 532759.00 5347807.00  
RE DISCCART 532861.50 5347807.00  
RE DISCCART 533422.53 5346647.42  
RE FINISHED

ME STARTING  
ME INPUTFIL SPKN91.met  
ME ANEMHGT 10.000 METERS  
ME SURFDATA 24157 1991 SPOKANE  
ME UAIRDATA 24157 1991 SPOKANE  
ME WINDCATS 1.54 3.09 5.14 8.23 10.80  
ME STARTEND 91 01 01 91 12 31  
ME FINISHED

OU STARTING  
OU MAXTABLE ALLAVE 10  
OU FINISHED

\*\*\*\*\*  
\*\*\* SETUP Finishes Successfully \*\*\*  
\*\*\*\*\*

\*\*\* ISCSTDFT VERSION 94340 \*\*\* \*\*\* IMPACTS FROM LP FACILITY FOR TIER II PERMIT MODIFICATION \*\*\*  
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\*\*\* MODELING FOR PM10, & NOx

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\*\*\* MODELING OPTIONS USED: CONC RURAL FLAT

NOSTD

NOCALM

\*\*\* THE SUMMARY OF MAXIMUM PERIOD ( 8760 HRS) RESULTS \*\*\*

\*\* CONC OF OTHER IN (MICROGRAMS-PER-CUBIC-METER) \*\*

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	GRID-ID
PM10	1ST HIGHEST VALUE IS	0.11931 AT ( 533096.75, 5347697.00,	0.00,	0.00) GP LP
	2ND HIGHEST VALUE IS	0.10804 AT ( 533089.56, 5347796.50,	0.00,	0.00) GP MCF&ICA
	3RD HIGHEST VALUE IS	0.10511 AT ( 533109.75, 5347771.00,	0.00,	0.00) GP LP
	4TH HIGHEST VALUE IS	0.10259 AT ( 532953.00, 5347601.00,	0.00,	0.00) DC
	5TH HIGHEST VALUE IS	0.09746 AT ( 533130.00, 5347752.00,	0.00,	0.00) DC
	6TH HIGHEST VALUE IS	0.08628 AT ( 533097.00, 5347829.00,	0.00,	0.00) DC
NOX	1ST HIGHEST VALUE IS	7.62563 AT ( 535350.00, 5350543.00,	0.00,	0.00) DC
	2ND HIGHEST VALUE IS	7.30251 AT ( 535400.00, 5350543.00,	0.00,	0.00) DC
	3RD HIGHEST VALUE IS	6.54166 AT ( 535300.00, 5350543.00,	0.00,	0.00) DC
	4TH HIGHEST VALUE IS	5.07130 AT ( 535450.00, 5350543.00,	0.00,	0.00) DC
	5TH HIGHEST VALUE IS	4.97954 AT ( 535184.31, 5350317.00,	0.00,	0.00) GP LIG
	6TH HIGHEST VALUE IS	4.95095 AT ( 535425.88, 5350605.00,	0.00,	0.00) GP LIG
NOXLP	1ST HIGHEST VALUE IS	2.97748 AT ( 533174.00, 5347753.00,	0.00,	0.00) DC
	2ND HIGHEST VALUE IS	2.01536 AT ( 533199.50, 5347738.00,	0.00,	0.00) GP LP
	3RD HIGHEST VALUE IS	1.76016 AT ( 533184.00, 5347718.00,	0.00,	0.00) DC
	4TH HIGHEST VALUE IS	1.44707 AT ( 533156.06, 5347758.50,	0.00,	0.00) GP LP
	5TH HIGHEST VALUE IS	1.41853 AT ( 532953.00, 5347601.00,	0.00,	0.00) DC
	6TH HIGHEST VALUE IS	1.30508 AT ( 533096.75, 5347697.00,	0.00,	0.00) GP LP
NOXLD	1ST HIGHEST VALUE IS	0.43150 AT ( 532246.50, 5347807.00,	0.00,	0.00) DC
	2ND HIGHEST VALUE IS	0.39597 AT ( 532344.31, 5347947.00,	0.00,	0.00) GC CAR
	3RD HIGHEST VALUE IS	0.34045 AT ( 532167.63, 5347787.00,	0.00,	0.00) GP MCF&ICA
	4TH HIGHEST VALUE IS	0.31809 AT ( 532253.31, 5347727.00,	0.00,	0.00) GP MCF&ICA
	5TH HIGHEST VALUE IS	0.30828 AT ( 532349.00, 5347807.00,	0.00,	0.00) DC
	6TH HIGHEST VALUE IS	0.29084 AT ( 532103.38, 5347710.50,	0.00,	0.00) GP MCF&ICA
NOXLG	1ST HIGHEST VALUE IS	7.38085 AT ( 535350.00, 5350543.00,	0.00,	0.00) DC
	2ND HIGHEST VALUE IS	7.06300 AT ( 535400.00, 5350543.00,	0.00,	0.00) DC
	3RD HIGHEST VALUE IS	6.29260 AT ( 535300.00, 5350543.00,	0.00,	0.00) DC
	4TH HIGHEST VALUE IS	4.83759 AT ( 535450.00, 5350543.00,	0.00,	0.00) DC
	5TH HIGHEST VALUE IS	4.71469 AT ( 535425.88, 5350605.00,	0.00,	0.00) GP LIG
	6TH HIGHEST VALUE IS	4.71252 AT ( 535184.31, 5350317.00,	0.00,	0.00) GP LIG

\*\*\* RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR

DC = DISCCART

DP = DISCPOLR

BD = BOUNDARY

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\*\*\* MODELING OPTIONS USED: CONC RURAL FLAT

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\*\*\* THE MAXIMUM 10 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: PM10

\*\*\*

INCLUDING SOURCE(S): EFB , EFBH , NGBIP , NGB2P ,

\*\* CONC OF OTHER IN (MICROGRAMS-PER-CUBIC-METER) \*\*

RANK CONC (YYMMDDHH) AT RECEPTOR (XR,YR) OF TYPE RANK CONC (YYMMDDHH) AT RECEPTOR  
(XR,YR) OF TYPE

1.	3.74546 (91082024) AT ( 533096.75, 5347697.00) GP	6.	2.55573 (91031624) AT ( 532903.31, 5347640.50) GP
2.	2.94993 (91030924) AT ( 533003.25, 5347710.50) GP	7.	2.54353 (91031624) AT ( 532908.81, 5347628.50) GP
3.	2.86924 (91022024) AT ( 533096.75, 5347697.00) GP	8.	2.45246 (91011824) AT ( 532888.81, 5347600.00) GP
4.	2.71996 (91100124) AT ( 533096.75, 5347697.00) GP	9.	2.35257 (91072124) AT ( 533130.00, 5347752.00) DC
5.	2.69031 (91030824) AT ( 533130.38, 5347688.00) GP	10.	2.09213 (91011824) AT ( 532953.00, 5347601.00) DC

\*\*\* RECEPTOR TYPES: GC = GRIDCART

GP = GRIDPOLR

DC = DISCCART

DP = DISCPOLR

BD = BOUNDARY